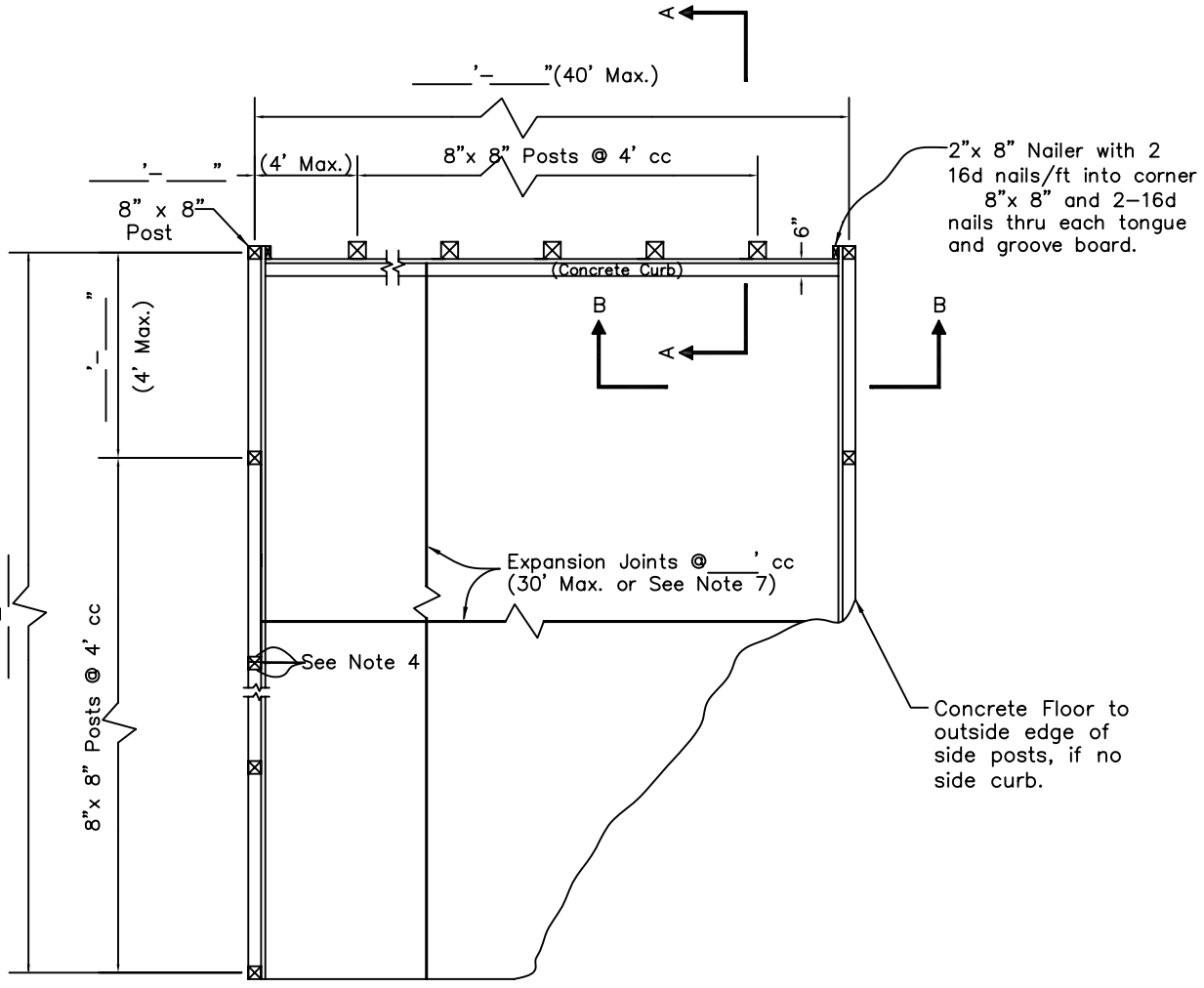
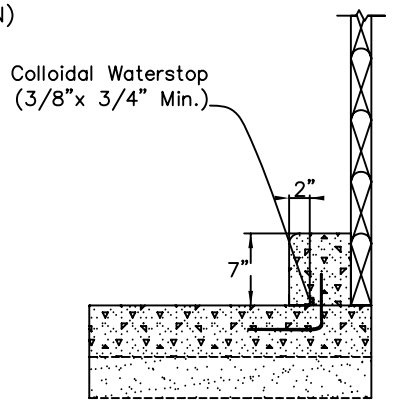
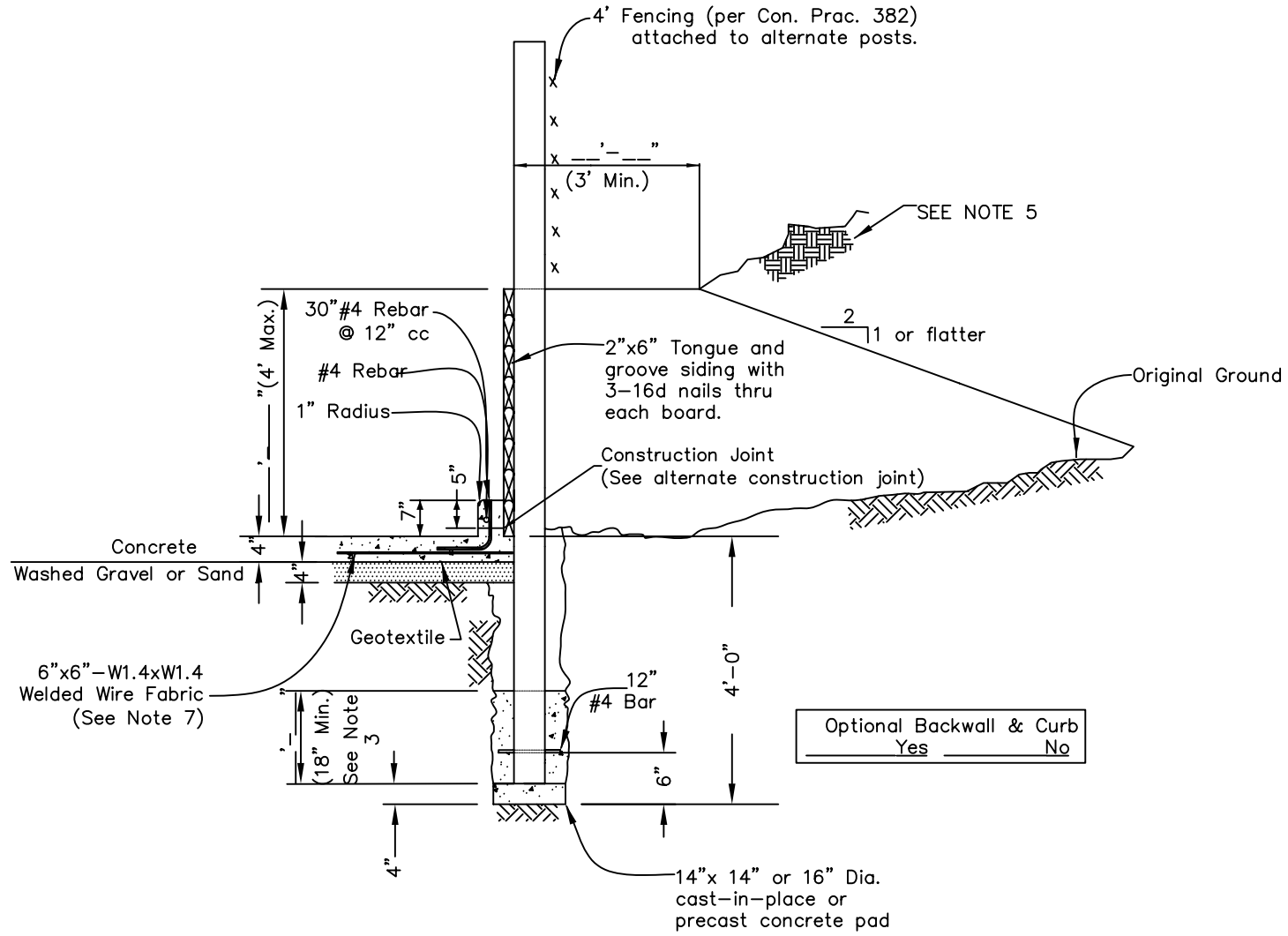


PLAN VIEW
(EARTH FILL NOT SHOWN)

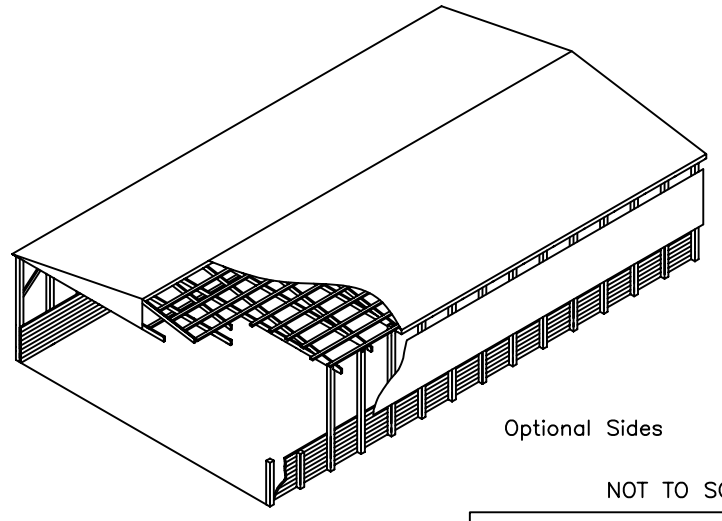


CONSTRUCTION JOINT
ALTERNATE



SECTION A–A

Optional Sides



Optional Sides

NOT TO SCALE

NOTE: Section B–B is on PA–016B; Notes are on PA–016C.

Adopted From WV–ENG–65 and MO–84–02

REDRAWN: TJA 7/05

Designed A. WOOD Date 11/90
Drawn S. DUNN Date 11/90
Checked
Approved by

ROOFED STACKING STRUCTURE – SOLID MANURE

_____ COUNTY, PENNSYLVANIA

NRCS
Natural Resources Conservation Service
United States Department of Agriculture

File No. PA–016A.dwg
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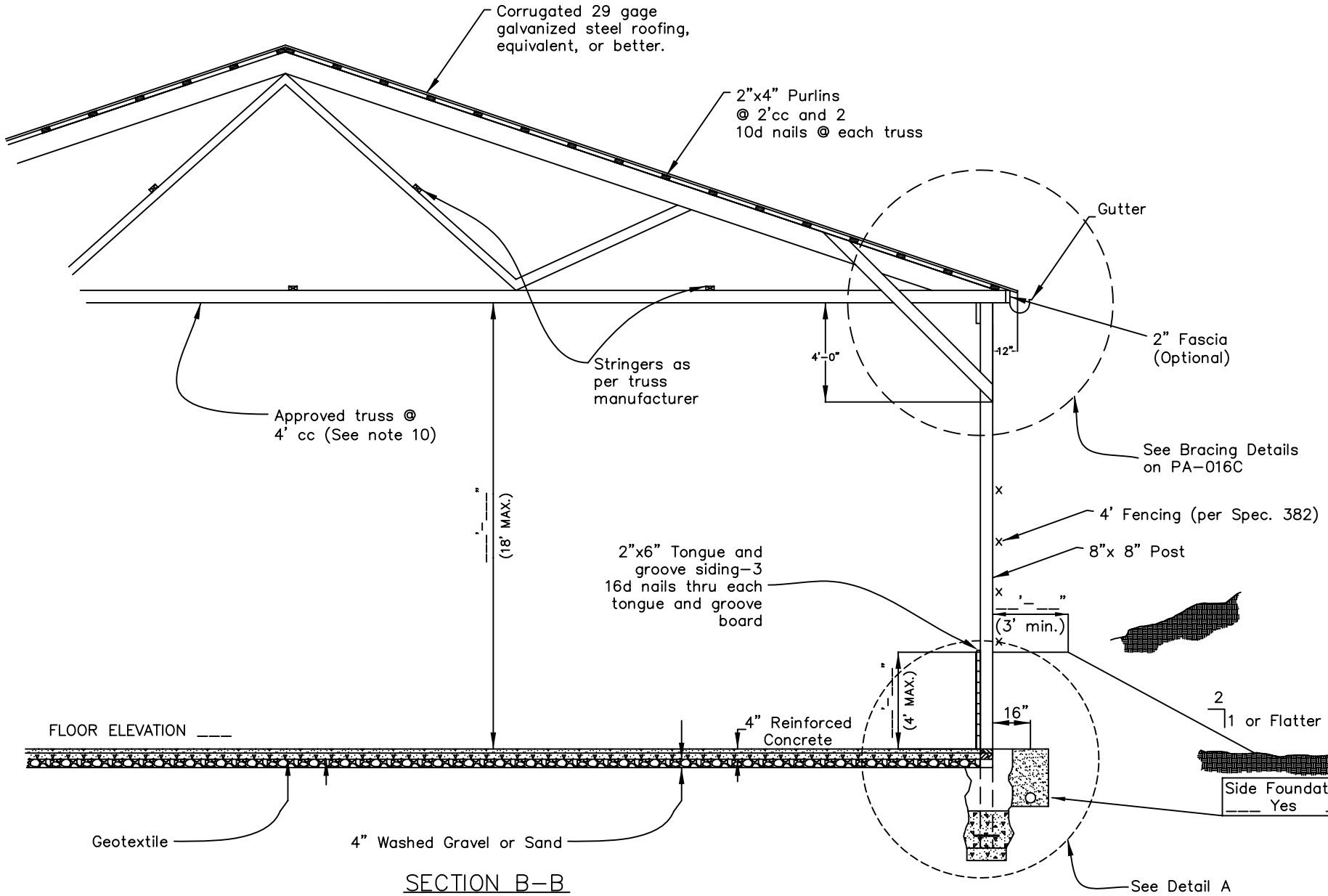
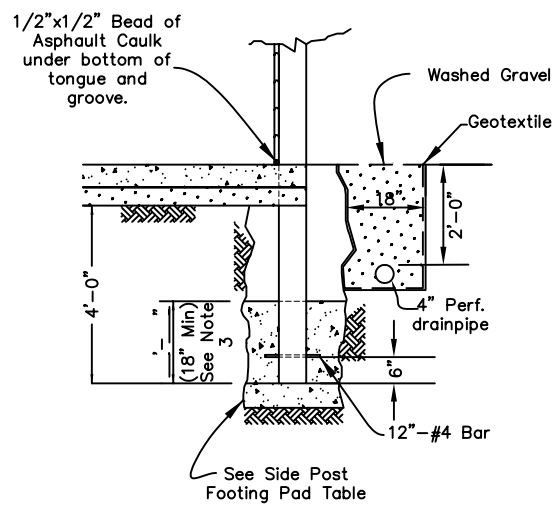


SECTION B-B

NOTE: Notes are on PA-016C



DETAIL A

SIDEWALL CURBING
___ YES ___ NO IF YES, USE AS IN SECTION A-A.
ENDWALL UPPER SIDING ___ YES ___ NO SIDEWALL UPPER SIDING ___ YES ___ NO IF YES, USE 3/4" X 4' X 8' EXT. C-C STRUCTURAL I PLYWOOD WITH 8D NAILS @ 8" SPACING ALONG EACH PLYWOOD SIDE, OR SAME AS ROOFING; DELETE FENCING ON POSTS; NO SIDING TO BE CLOSER THAN 2' TO GIRTS AND 6" TO TONGUE AND GROOVE SIDING.

SIDE POSTS FOOTING PAD TABLE 1/

FOUNDATION MATERIAL 2/	SIZE	THICKNESS
Durable Rock, GW, GP, SW, SP	12"x12" or 14" Dia.	4"
GM, GC, SM, SC	16"x16" or 18" Dia.	6"
CL, MH, ML, CH	20"x20" or 22" Dia.	8"

1/ Unless local site conditions or codes require greater dimensions

2/ USCS

LIMITING DESIGN LOADS

Backwall earth fill: γ Max.=110pcf, ϕ =30°
Manure: 8' Max. Height within 4' of side walls, 25pcf Equivalent Fluid Pressure.

ADOPTED FROM WV-ENG-65 AND MD-84-02

NOT TO SCALE

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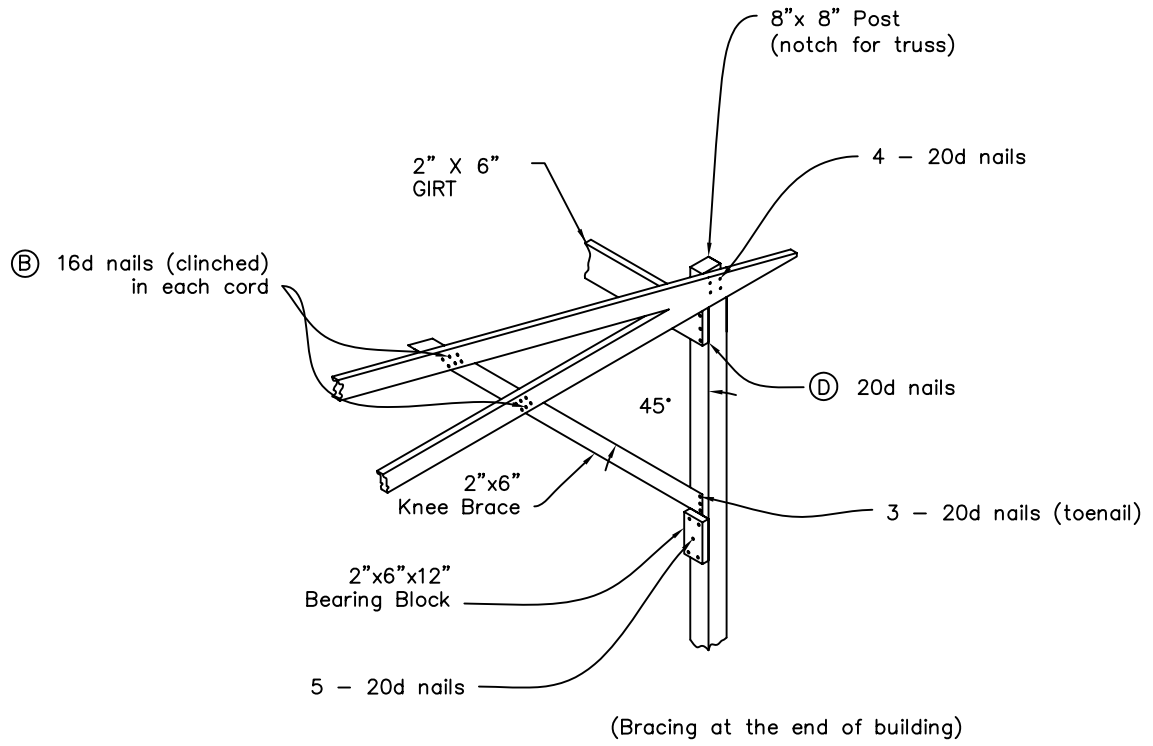
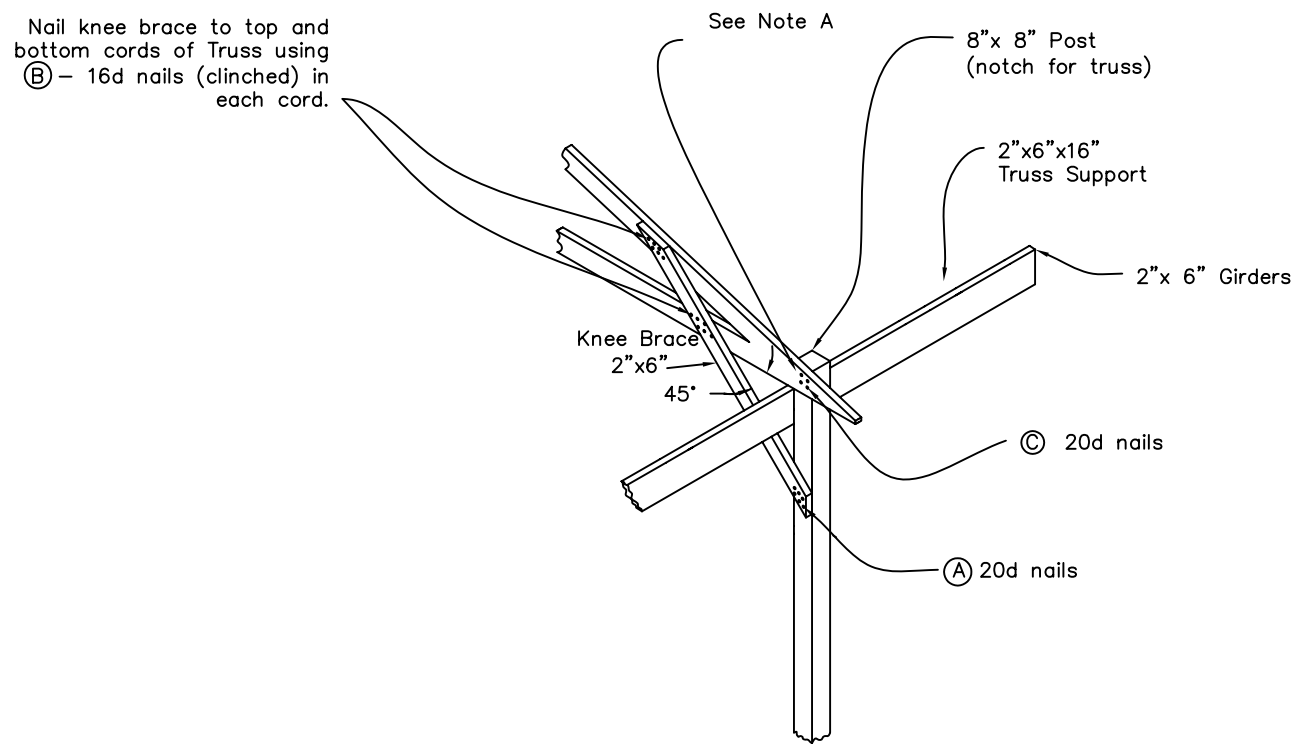


(Bracing at the end of building)



BRACING DETAILS

NOT TO SCALE

REDRAWN: TJA 7/05

BRACING DETAILS

A. On ends of 2"x 6" Girders, use Ⓓ – 20d nails. Where Girts crosses treated posts, use Ⓔ – 20d nails.

B Bracing configuration may be revised by the Truss manfacturer with the prior approval of the engineer.

Number of Nails Required		
	Span Width	
Joint	≤30′	>30′&≤40′
A	4	6
B	6	9
C	4	4
D	3	3
E	3	5

CONSTRUCTION NOTES

1. BOLTS, SCREWS, OR METAL PLATE CONNECTORS MAY BE USED INSTEAD OF NAILS. SUCH SUBSTITUTIONS SHALL PROVIDE A CONNECTION OF EQUAL OR GREATER STRENGTH AND DURABILITY, ACCORDING TO THE NATIONAL FOREST PRODUCTS ASSOCIATION'S (NFPA) NATIONAL DESIGN SPECIFICATION.
2. NAILS SHALL BE GALVANIZED AND HAVE RING, SPIRAL, OR SCREW SHANKS ESPECIALLY DESIGNED FOR USE WITH PRESSURE PRESERVATIVE TREATED LUMBER.
3. IF POST EMBEDMENT CONCRETE IS TAKEN TO THE SURFACE, ISOLATE FROM FLOOR CONCRETE WITH TAR PAPER AND CAMBER FOR POSITIVE DRAINAGE. EARTH BACKFILL TO BE PLACED IN COMPACTED 8" LIFTS.
4. PUT 1/2" THICK EXPANSION JOINT MATERIAL BETWEEN 8" X 8" SIDE POSTS AND FLOOR CONCRETE.
5. IF REAR WALL IS TO BE BELOW ORIGINAL GRADE, CONTINUE SIDE DRAIN ALONG BACK WALL, BUT DO NOT HAVE DRAINFILL HIGHER THAN FLOOR SLAB.
6. BATTENS, NAILERS, POSTS, AND TONGUE AND GROOVE SIDING SHALL BE TREATED AS PER AMERICAN WOOD – PRESERVER'S ASSOCIATION STANDARD C16–82.
7. IF EXPANSION JOINTS IN FLOOR SLAB ARE MORE THAN 30' APART IN EITHER DIRECTION, THE WWF SHALL BE INCREASED TO 6" – W2.9 IN THAT DIRECTION.
8. GEOTEXTILE SHALL HAVE: (A) AN AOS BETWEEN 70 AND 100, (B) A MINIMUM TENSILE STRENGTH OF 100 LBS., AND (C) A MINIMUM PUNCTURE STRENGTH OF 40 LBS.
9. POSTS SHALL BE SOUTHERN PINE NO. 2–SR GRADE OR DOUGLAS FIR–LARCH NO. 1 GRADE (SURFACE GREEN, USED AT ANY CONDITION). ALL OTHER LUMBER SHALL BE SOUTHERN YELLOW PINE OR DOUGLAS FIR–LARCH NO. 2 GRADE (SURFACE DRY, USED AT 19% MAXIMUM MOISTURE CONTENT). SUBSTITUTION OF OTHER SPECIES AND GRADES WITH EQUAL OR GREATER BENDING STRENGTH (AS PER NFPA DESIGN VALUES FOR WOOD CONSTRUCTION) MAY BE MADE IF APPROVED BY THE ENGINEER.
10. TRUSSES SHALL BE DESIGNED FOR DEAD LOAD PLUS EACH OF THE FOLLOWING SEPARATE CONDITIONS:
    (A) UNIFORM LOAD OF 20 PSF ON ENTIRE TRUSS
    (B) UNIFORM LOAD OF 30 PSF ON HALF TRUSS
    (C) UNIFORM UPLIFT OF 5 PSF UNDER ENTIRE TRUSS
    SHOP DRAWINGS AND CERTIFICATIONS SHALL BE PROVIDED BY THE MANUFACTURER/SUPPLIER. (TRUSS AND STRINGER CONFIGURATION SHOWN IS FOR ILLUSTRATION PURPOSES ONLY).
11. ROOF GUTTERS WITH DOWNSPOUTS MAY BE SUBSTITUTED FOR DRIPLINE DRAIN. EITHER ALTERNATIVE MUST HAVE NON–EROSIVE, POSITIVE OUTLETS. ROOF GUTTERS SHALL MEET THE REQUIREMENTS OF NRCS CONSERVATION PRACTICE 558.
12. END TRUSSES SHALL BE FACED WITH 3/4" EXT. C–C STRUCTURAL I PLYWOOD, CORRUGATED 29 GAGE GALVANIZED STEEL ROOFING, AN EQUIVALENT, OR BETTER.
13. ALL FINAL CUT/FILL SURFACES SHALL BE GRADED TO DIRECT SURFACE WATER AWAY FROM THE STRUCTURE.

ADOPTED FROM WV–ENG–65
AND MO–84–02

Date 11/90
Designed A. WOOD
Drawn S. DUNN
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